



March 6, 2014

**CERTIFIED MAIL NO. 7006 2150 0004 2965 5622**  
**RETURN RECEIPT REQUESTED**

Office of Enforcement and Compliance Assurance  
Office of Federal Activities  
International Compliance Assurance Division (2254A)  
Environmental Protection Agency  
1200 Pennsylvania Ave., NW  
Washington, DC 20460

Re: 2013 Annual Hazardous Waste Export Report  
The Premcor Refining Group, Inc. – Valero Port Arthur Refinery  
Industrial Solid Waste Registration No. 30004  
EPA ID No. TXD008090409  
Regulated No. RN 102584026  
Customer No. CN 601420748

Dear Administrator,

The Premcor Refining Group, Inc. is resubmitting this Annual Report for the 2013 calendar year, that was originally mailed on February 28<sup>th</sup>, 2014. The certification signature page was not attached to the previous report, this has been corrected in the following report.

If you should have any questions, please contact Paula LaRocca, Manager Environmental Engineering, at (409) 985-1200

Sincerely,

A handwritten signature in blue ink, appearing to read 'Paula LaRocca'.

Paula LaRocca  
Manager Environmental

Attachments

CMG

cc: TCEQ Region 10

**Port Arthur Refinery** • The Premcor Refining Group, Inc., A Valero Company  
P.O. Box 909 • Port Arthur, Texas 77641-0909

received  
SDN 3/10/2014



February 12, 2014

**CERTIFIED MAIL NO. 7006 2150 0004 2965 5479**  
**RETURN RECEIPT REQUESTED**

Office of Enforcement and Compliance Assurance  
Office of Federal Activities  
International Compliance Assurance Division (2254 A)  
Environmental Protection Agency  
1200 Pennsylvania Ave., NW  
Washington, DC 20460

**Re: 2013 Annual Hazardous Waste Export Report**  
The Premcor Refining Group, Inc. - Valero Port Arthur Refinery  
Industrial Solid Waste Registration No. 30004  
EPA ID No. TXD008090409  
Regulated No. RN 102584026  
Customer No. CN 601420748

Dear Administrator,

The Premcor Refining Group, Inc. is submitting this Annual Report for the 2013 calendar year for hazardous waste that was exported to a foreign country for metals reclamation from our Port Arthur Refinery.

This report has been prepared in accordance with the requirements of **40 CFR 262.87**.

**(a)(1) The EPA identification number, name, and mailing and site address of the exporter:**  
TXD008090409, The Premcor Refining Group, Inc. - Valero Port Arthur Refinery, PO Box 909, Port Arthur, TX 77641 and site address 1801 South Gulfway Drive, Port Arthur, TX 77640

**(a)(2) The calendar year covered by the report:** 2013

**(a)(3) The name and site address of final recovery facility:**  
Union Corporation, #548, Okmyoung-Ri, Daesong-Myon, Nam-Gu, Pohang-City, Kyungsanbuk-Do, South Korea

**(a)(4) By final recovery facility for hazardous waste exported, a description of the hazardous waste, the EPA hazardous waste number (from 40 CFR part 261, subpart C or D), waste type from OECD waste list and applicable waste code from the OECD lists, DOT hazard class, the name and US EPA ID number (where applicable) for each transporter used, the total amount of waste shipped and number of shipments pursuant to each notification:**  
Union Corporation South Korea, Spent Hydrotreating Catalyst, K171, Metal Bearing Waste, B1120, DOT Hazard Class 4.2, transporter - Triad Transport Inc. (transporter EPA ID# OKD981588791), 256.03 tons, 1 shipment.

**Port Arthur Refinery • The Premcor Refining Group, Inc., A Valero Company**  
P.O. Box 909 • Port Arthur, Texas 77641-0909

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**(a)(5) Except for hazardous waste produced by exporters of greater than 100 kg but less than 1000 kg in a calendar month, unless provided pursuant to §262.41, in even numbered years:**

**(i) A description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated; and**

The *Source Reduction Waste Minimization Plan 2012-2016* Executive Summary can be found in Attachment I.

**(ii) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for years prior to 1984:**

Valero Port Arthur Refinery continues to implement provisions of the *Source Reduction Waste Minimization Plan 2012-2016*. As required by that plan and associated reporting requirements, the annual progress report on source reduction and waste minimization activities will be submitted by July 1, 2014 to the Texas Commission on Environmental Quality, and will be available upon request.

**(a)(6) A certification signed by the primary exporter: see Attachment II**

Should you have any questions or require additional information, please contact Tim Ernst at (409) 985-1632 or via e-mail at [tim.ernst@valero.com](mailto:tim.ernst@valero.com).

Sincerely,



J. Greg Gentry  
Vice President and General Manager

TE/cmg

Attachments

cc: TCEQ Region 10



EPA Admin, 2013 Annual Hazardous Waste Export Report  
February 12, 2014  
bcc: T. Lopez, P. LaRocca

File Code: SW-03-01

**ATTACHMENT I**

**SOURCE REDUCTION WASTE MINIMIZATION PLAN 2012-2016**

**EXECUTIVE SUMMARY**



Post Office Box 909 • Port Arthur, Texas 77641-0909 • Telephone (409) 985-1000

December 21, 2011

Certified Mail No. 7007 3020 0000 1142 6193  
Return Receipt Requested

Pollution Prevention Planning, MC 112  
Texas Commission on Environmental Quality  
PO Box 13087  
Austin, TX 78711-3087

RE: Executive Summary for Pollution Prevention Plan  
Valero Energy Corporation  
Premcor Refining Group  
Port Arthur Refinery  
TCEQ Solid Waste Registration Number 30004  
TRI ID Number 77640CLRKR1801S

To Whom It May Concern:

In accordance with the Waste Reduction Policy Act 30 TAC § 335, Subchapter Q, please find enclosed the Executive Summary for the Port Arthur Refinery's Five Year Update to the Texas Pollution Prevention Plan. The plan has been updated using 2010 as the baseline year and covers the five year period 2012-2016.

If there are any questions, please contact Tim Ernst at (409)985-1632.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd M. Lopez", written over a horizontal line.

Todd M. Lopez, P.E.  
Health, Safety and Environmental Director

Attachments

cc: TCEQ, Region 10 Waste Section

File: WA-31-11



**TEXAS POLLUTION PREVENTION &  
WASTE MINIMIZATION PLAN**  
*5-Year Plan for Period 2012-2016*

**THE PREMCOR REFINING GROUP, Inc.  
VALERO – PORT ARTHUR REFINERY**

**TEXAS POLLUTION PREVENTION PLAN  
VALERO PORT ARTHUR REFINERY**

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*Executive Summary*

*III-IX*



**Texas Pollution Prevention Plan  
for Reduction of Hazardous Wastes and TRI Compound Releases  
for the 5-Year Period January 1, 2012 thru December 31, 2016**

***EXECUTIVE SUMMARY***

***Description of the Facility***

**Company:** The Premcor Refining Group, Inc.

**Site:** Valero Energy Corporation - Port Arthur Refinery

<b>Physical Address:</b>	Valero Port Arthur Refinery 1801 South Gulfway Drive Port Arthur, Texas 77640	<b>Mailing Address:</b>	Valero Port Arthur Refinery P. O. Box 909 Port Arthur, Texas 77641-0909
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**Contact:** Tim Ernst, Sr. Environmental Engineer  
Phone: 409- 985-1632  
Email: [tim.ernst@valero.com](mailto:tim.ernst@valero.com)

The Port Arthur refinery is an integrated oil refinery established in the early 1900's on a site which covers 3875 acres. Currently the refinery's throughput is approximately 330,000 barrels per day. Primary petroleum products include gasoline, jet fuel, kerosene, and diesel. The refinery is operated and maintained by approximately 835 Valero employees.

The Port Arthur Refinery operates under the following environmental permits and registration:

- |                                 |                 |
|---------------------------------|-----------------|
| • TCEQ Solid Waste Registration | 30004           |
| • EPA Identification            | TXD008090409    |
| • TRI ID Number                 | 77640CLRKR1801S |
| • SIC Code                      | 2911            |
| • NAICS Code                    | 324110          |
| • TCEQ Air Account              | JE0042B         |
| • TPDES Permit                  | 00309           |

## *Hazardous Waste 2006 - 2010*

Waste Description	TCEQ Codes	2006 (tons)	2007 (tons)	2008 (tons)	2009 (tons)	2010 (tons)
Soils contaminated w/hazardous waste	1900301H	0.00	174.59	313.81	394.86	2928.34
Spent catalyst (NiMo, CoMo, Act. Al)	3000393H	600.36	1218.91	1100.49	857.26	122.35
Sump pit or sewer box sludge	2700319H	2286.58	817.62	923.15	61.81	107.93
Debris contaminated w/hazardous waste	2704319H	67.26	61.77	1278.79	63.54	56.24
Tank Bottoms (Clarified Slurry Oil)	2701319H	995.12	3105.41	1434.73	0.00	53.57
Calcium Fluoride off-spec	2721319H	137.05	132.89	408.59	249.47	24.31
Spent Acid Solution	0251105H	0.00	0.00	0.00	0.00	2.25
Potassium Hydroxide (443 HFAU, KOH)	0452109H	3.28	2.55	2.28	2.33	1.73
Aerosol Cans	6003801H	0.00	0.00	0.00	0.38	0.41
Chemical Lab Pack	0001001H	0.00	0.04	0.02	0.20	0.30
Spent Acid with metals (COD Vials)	0150103H	0.55	0.26	0.33	0.44	0.30
Petroleum distillates (Lab, Silica Gel)	1550211H	0.00	0.10	0.00	0.08	0.05
Mercury contaminated waste	2705319H	0.01	0.02	0.00	0.00	0.00
Halogenated Solvents	1100202H	0.08	0.00	0.63	0.00	0.00
Unused Chemicals	1600219H	0.10	0.01	0.00	0.00	0.00
Blasting Sand	2706319H	0.00	0.60	0.00	0.00	0.00
Exchange Sludge & Sand	2727319H	0.00	65.31	0.00	0.00	0.00
Platinum Catalyst	3005393H	0.00	0.00	0.00	55.73	0.00
Compressed Cylinders	6002801H	0.00	0.17	0.00	0.17	0.00
<b>Totals</b>		4090.38	5580.24	5462.81	1686.26	3297.77



**TRI Releases 2006 - 2010**

Chemical Name	2006 (lbs/yr)	2007 (lbs/yr)	2008 (lbs/yr)	2009 (lbs/yr)	2010 (lbs/yr)
Sulfuric Acid	34599	25678	28360	34,350	33,468
Nitrate Compounds	25347	28636	21573	31,619	24,131
Ammonia		1980	1440	22,195	20,729
Cyclohexane	16581	17101	9625	10,795	15,114
Benzene	11172	11959	10921	14,741	13,339
Toluene	14717	23384	24791	12,206	12,306
Propylene	22819	28721	64494	10,283	10,044
n-Hexane	17349	6843	15962	12,516	9,512
Ethylene	18717	39659	17753	9,604	8,868
Xylene-mixed isomers	3041	3738	3697	6,855	5,741
Carbonyl Sulfide	8388	7928	3370	8,658	5,059
Carbon Disulfide	1955	2813	1184	3,424	3,156
Nickel Compounds	1663	1867	1449	2,846	2,253
Ethylbenzene	1994	8038	4023	2,189	1,979
Lead Compounds	268	628	226	264	1,574
Zinc Compounds	973	1101	830	2,052	1,572
Cyanide Compounds	158	91	72	1,315	1,096
1,2,4-Trimethylbenzene	292	3144	965	1,320	903
Styrene	253	264	583	1,057	733
Manganese	940	946	525	621	622
Hydrogen Cyanide	95	91	72	3,135	509
Chlorine	379	362	288	356	297
Phenol	343	50	154	303	274
Chromium Compounds	376	288	211	249	251
Hydrochloric Acid	1151	81	79	175	153
Cumene	3866	9771	4228	210	152
1,3-Butadiene	535	174	215	96	113
Cresols	106	119	90	124	93
Phenanthrene	108	122	92	115	88
Anthracene	107	120	90	114	87
2,4-Dimethylphenol	106	119	90	113	86
Naphthalene	831	2955	1507	88	64
Cobalt Compounds	20	21	18	57	56
Molybdenum Trioxide	10	26	23	16	20
Polycyclic Aromatic Compounds	227	217	173	12	12
Mercury Compounds	14	14	12	9	8
Biphenyl	0			5	3
Benzo(g,h,i) perylene	1	1	0	1	1
Certain Glycol Ethers	0	0	0	0	0
Diethanolamine	0	0	0	0	0
Hydrogen Fluoride	1209	0	0	0	0
Tetrachloroethylene	0	0	0	0	0
<b>Totals</b>	<b>190,710</b>	<b>229,050</b>	<b>219,185</b>	<b>194,085</b>	<b>174,466</b>

### ***List of Pollutants and Contaminants to be Reduced***

<b>Priority</b>	<b>Waste Code</b>	<b>Pollutants/Waste to be Reduced</b>
1	2700319H	Sewer Box Sludge
2	2704319H	Hazardous Debris
3	2701319H	Tank Bottoms
4	0452109H	Potassium Hydroxide

### ***Reduction Goals***

Valero has defined several specific and general goals for waste minimization in the Port Arthur Refinery. These goals are:

- Reduce the risk to human health and the environment,
- Reduce the cost of waste management, and
- Reduce the potential liability of waste management methods.

The table below indicates the anticipated reduction of the hazardous waste streams chosen for this P2 plan.

<b>Waste to be Reduced</b>	<b>Reduction (percent)</b>	<b>Reduction (tons)</b>	<b>Project</b>
Sewer Box Sludge	40%	43.2	Removal of debris from the sewer box sludge; through separation and prescreening, will allow more onsite recycling of this waste stream.
Hazardous Debris	20%	11.2	By segregating the scrap metal and e-waste from the debris waste stream will reduce hazardous waste disposal volumes and increase recycling.
Tank Bottoms	100%	53.6	Changing tank cleaning process for Clarified Slurry Oil (CSO) tanks will allow tank bottoms to be recycled onsite. Also explore recycling tank bottoms into coke drum feed line to obtain higher volumes of recyclable materials.
Potassium Hydroxide (KOH)	100%	1.7	Routing the KOH waste stream to the spent caustic tank allows the KOH to be regenerated for reuse.



### ***Environmental and Human Health Risks Considered***

All projects at the Valero Port Arthur Refinery are reviewed by a team of environmental, engineering, operations, maintenance and management to determine validity of the project. One of the main purposes of the review is to determine if there will be any adverse affects on employees and the surrounding community. Other aspects of the review also include potential environmental impacts including whether or not the project will increase the amount of an existing pollutant or cause a new pollutant to be released (new waste stream). The system in place is designed to take into account all of these aspects to determine if a project is viable or not. By doing this Valero assures that if a project moves forward then the issue of hazardous waste and TRI releases are addressed before hand, appropriate measures are taken to address any issues and every effort is made to minimize potential impacts therefore leading to reduced impacts on human health and the environment.

### ***Implementation Schedule***

#### **Sewer Box Sludge**

2012 – Develop a screening and segregation process to remove debris from sewer box sludge.

2013 – Train employees and implement screening and segregation process.

#### **Hazardous Debris**

2012 – Train employees on proper segregation of recyclable materials.

2012 – Establish profile for e-waste and begin recycle program.

#### **Tank Bottoms**

2012 – Develop and implement new tank cleaning process for CSO tanks.

2012 – Research coker injection into the coke drum feed line.

2013 – Begin planning for installation of piping for of coke drum feed line injection.

2014 – Have material ready for installation and install during next DCU outage.

2015 – Begin feed side injection if piping installations are complete.

#### **Potassium Hydroxide**

2012 – Complete MOC for piping KOH sample station to spent caustic tank.

2013 – Complete piping assembly and begin KOH recycling.

## ***Media Transfers***

### **Sewer Box Sludge**

The Valero Port Arthur Refinery uses an EPA approved process that inserts sewer box sludge and other oil-bearing hazardous materials back into the refinery system. The oil is recovered and put back into the process in either FCC Unit or the Crude Unit. The wastewater is returned to the WWTU for treatment and the sludge is inserted into the Delayed Coking Unit (DCU) to a petroleum coke.

Veolia Process Solutions (Veolia PS) has a recycling process unit constructed onsite to provide these services. However if large volumes of oversize debris are mixed in with the sewer sludge, Veolia PS will not be able to process the material. Through separation and prescreening of the waste prior to entering the Veolia PS process, Valero should be able to process more oily sludge verses offsite disposal at an incinerator. The hazardous debris that is separated from the sewer box sludge will have to be disposed of as hazardous waste.

### **Hazardous Debris**

Metal sewer pipe is sometimes discarded with other hazardous debris from the refinery. By segregating the pipe from the other debris and hydro-blasting the pipe free of contaminants, this material can be sold as scrap metal. The waste generated from the hydro-blasting will either go for disposal as hazardous waste or the material will be recycled to the DCU. The disposition of this material is based on the oil content of the waste.

Segregation of the e-waste material from the hazardous debris will not transfer any pollutants to other media.

### **Tank Bottoms**

The additional hydrocarbons and chemicals used to adequately prepare the CSO tank bottoms for coker injection will be recovered at Veolia PS and then recycled to the refinery feedstock tanks. The only media transfer would be from the debris generated during the tank cleaning operation. This debris will have to be disposed of as hazardous waste.

### **Potassium Hydroxide**

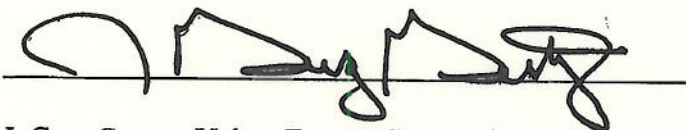
By routing the KOH sample station stream to the spent caustic tank, Valero does not anticipate any transfer of pollutants to other media as a result of this project. The spent caustic from the spent caustic tank is periodically sent offsite for regeneration and reuse.



## OWNER'S CERTIFICATION

I certify that this pollution prevention Plan has been prepared according to and meets the specified requirements of Senate Bill 1099 of the 72nd Texas Legislature, the Solid Waste Disposal Act, and 30 TAC §335.471 -- 335.480, and that the information provided herein is true, correct, and complete.

I also certify that I have the authority to commit the corporate resources necessary to implement this plan.



J. Greg Gentry, Valero Energy Corporation  
Port Arthur Refinery  
Vice President and General Manager



Date

**ATTACHMENT II**

**PRIMARY EXPORTER CERTIFICATION**



### **Certification by Primary Exporter**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

  
\_\_\_\_\_  
J. Greg Gentry, Vice President and General Manager

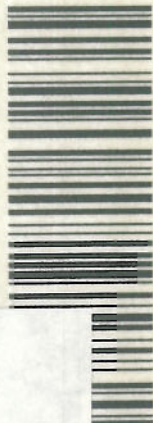
3/3/14  
Date



**VALERO**

**PORT ARTHUR REFINERY**

Post Office Box 909 • Port Arthur, Texas 77641-0909



7006 2150 0004 2965 5622

MAR 10 2014

Office of Enforcement & Compliance Assurance  
Office of Federal Activities  
International Compliance Assurance Division (2254 A)  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

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